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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/629,599 | 07/30/2003 | Antonio Lain | 200205658-2 | 6218 |
| 22879 | 7590 | 10/18/2006 | EXAMINER BANKS, CORBANN | |
| HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400 | | | ART UNIT 2132 | PAPER NUMBER |

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|------------------------|---------------------|
| | 10/629,599 | LAIN ET AL. |
| Examiner | Art Unit | |
| Corbann A. Banks | 2132 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 July 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1 - 13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1 - 13 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. ____ .
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 30 July 2003.
5) Notice of Informal Patent Application
6) Other: ____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Here, it mentions "a first value associated with invalidation of the first user's key". It is never stated exactly how or when the first user's key is determined to be invalid, thus making the claim indefinite and unclear. The claim also states "comprising the steps of: issuing a security key to a first user eligible to receive the service; ... establishing, in accordance with a policy, a first value associated with invalidation of the first user's key, and a second value associated with providing the service to an ineligible user, and if the second value exceeds the first value, invalidating the key". It is not made explicitly clear whether the "key" they are invalidating is the actual "security key" or the "first user's key", thus making the claim further indefinite and unclear. Finally, the limitation in the claim does not specifically state what happens when the "second value" does not exceed the "first value", making it more indefinite and vague.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 10 - 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US PGPub 2002/0031230 A1) in view of Stefik et al. (US Patent # 6,236,971).

Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. Applicant should consider the entire prior art as applicable as to the limitations of the claims. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

Here, Sweet clearly shows the use of a method of managing security keys (see paragraph 0023) provided to users of a service comprising the steps of: issuing a security key to a first user eligible to receive the service (see paragraph 0037); monitoring the first user's status to establish whether the first user is eligible to receive

the service (see paragraph 0025). However, Sweet does not teach the use of an establishment, in accordance with a policy, of a first value associated with invalidation of the first user's key, and a second value associated with providing the service to an ineligible user, and if the second value exceeds the first value, invalidating the key.

On the other hand, Stefik does teach the use of establishing a policy using repository security classes which can create and manage such values mentioned above (see column 14, lines 34 - 40).

Hence, it would have been obvious to one of ordinary skill in the art to have included the technology shown by Stefik into the device taught by Sweet above, in order to assure the convenience of access and low-overhead billing, despite some unauthorized copying (see column 15, lines 15 – 25 of the Stefik reference). With respect to claims 10 – 12, their limitations map directly onto the ones shown in claim 1 and are rejected under the same premise.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US PGPub 2002/0031230 A1) in view of Stefik et al. (US Patent # 6,236,971) as applied to claims 1 and 10 - 12 above, and further in view of Aiello et al. (US Patent # 6,397,329 B1). The Sweet and Stefik references has already been discussed above. However, neither one of these two teaches a policy that further provides the first value

as related to the economic penalty associated with reconfiguration of keys issued to other users consequent to invalidation of the first user's key.

On the other hand, Aiello does teach the use of a key invalidation scheme (i.e. policy) that provides the first value as related to the economic penalty associated with reconfiguration of keys issued to other users consequent to invalidation of the first user's key (see columns 11 –12, lines 36 – 67 and 1 - 26).

Hence, it would have been obvious to one of ordinary skill in the art to have included the methods shown by Aiello into the combination taught by prior two references above, in order to reduce the consequent number of tokens (keys) needed to be updated each time a user's key is invalidated in a hierarchical structure (see column 10, lines 48 – 56 of the Aiello reference), thus assuring low-overhead billing and the convenience of access, despite some unauthorized copying (see column 15, lines 15 – 25 of the Stefik reference).

Claims 3 – 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US PGPub 2002/0031230 A1) in view of Stefik et al. (US Patent # 7,024,392 B2).

The Sweet reference has already been discussed above. However, the Sweet reference does not teach the use of a policy which provides the second value as related to aggregating the economic penalty associated with provision of the service to the ineligible user.

On the other hand, Stefik does teach the use of a policy using repository security classes which can create and calculate such a value as described above (see column 14, lines 20 – 25 and 34 - 40)

Hence, it would have been obvious to one of ordinary skill in the art to have included the technology shown by Stefik into the device taught by Sweet above, in order to help ensure the convenience of access and low-overhead billing, despite some unauthorized copying (see column 15, lines 15 – 25 of the Stefik reference). With respect to claim 3, the limitations shown there map directly onto the ones shown in claim 4 and are rejected under the same premise.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US PGPub 2002/0031230 A1) in view of Stefik et al. (US Patent # 7,024,392 B2). The Sweet reference has already been discussed above. However, the Sweet reference does not teach the use of an economic penalty associated with provision of service to ineligible users, including a value representative of dilution of economic value to eligible users consequent to provision of the service to ineligible users.

On the other hand, Stefik does teach the use of a policy using repository security classes which can create and calculate such a value as described above (see column 6, lines 15 – 30, and column 14, lines 20 – 25 and 34 - 40)

Hence, it would have been obvious to one of ordinary skill in the art to have included the technology shown by Stefik into the device taught by Sweet above, in order to help ensure the convenience of access and low-overhead billing, despite some unauthorized copying (see column 15, lines 15 – 25 of the Stefik reference).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US PGPub 2002/0031230 A1) in view of Stefik et al. (US Patent # 7,024,392 B2). The Sweet reference has already been discussed above. However, the Sweet reference does not teach the use of an economic penalty of providing the service to ineligible users, including any costs arising from the provision of network and server capacity to ineligible users.

On the other hand, Stefik does teach the use of a policy using repository security classes which can create and calculate such a value as described above (see column 6, lines 15 – 20, and column 14, lines 20 – 25 and 34 - 40)

Hence, it would have been obvious to one of ordinary skill in the art to have included the technology shown by Stefik into the device taught by Sweet above, in order to help ensure the convenience of access and low-overhead billing, despite some unauthorized copying (see column 15, lines 15 – 25 of the Stefik reference).

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Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US PGPub 2002/0031230 A1) in view of Stefik et al. (US Patent # 6,236,971) as applied to claims 1 and 10 - 12 above, and further in view of Aiello et al. (US Patent # 6,397,329 B1). The Sweet and Stefik references has already been discussed above. However, neither one of these two teaches the use of security keys being generated in an ancestrally-based hierarchy, and wherein invalidation of a given key necessitates a need for reconfiguration of each key in the hierarchy.

On the other hand, Aiello does teach the use of security keys being generated in an ancestrally-based hierarchy (see column 8, lines 35 - 60), and wherein invalidation of a given key necessitates a need for reconfiguration of each key in the hierarchy (see columns 13 – 14, lines 39 – 67 and 1 – 31).

Hence, it would have been obvious to one of ordinary skill in the art to have included the methods shown by Aiello into the combination taught by prior two references above, in order to reduce the consequent number of tokens (keys) needed to be updated each time a user's key is invalidated in a hierarchical structure (see columns 5 and 10, lines 55 – 60 and 48 – 56 of the Aiello reference), thus assuring low-overhead billing and the convenience of access, despite some unauthorized copying (see column 15, lines 15 – 25 of the Stefik reference).

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Claims 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US PGPub 2002/0031230 A1) in view of Stefik et al. (US Patent # 6,236,971) as applied to claims 1 and 10 - 12 above, and further in view of Aiello et al. (US Patent # 6,397,329 B1). The Sweet and Stefik references has already been discussed above. However, neither one of these two teaches that upon invalidation of a given key, another key requires reconfiguration only to the extent that it shares common ancestor keys with the given invalidated key.

On the other hand, Aiello does teach that upon invalidation of a given key, another key requires reconfiguration only to the extent that it shares common ancestor keys with the given invalidated key (see columns 10, lines 19 –48).

Hence, it would have been obvious to one of ordinary skill in the art to have included the methods shown by Aiello into the combination taught by prior two references above, in order to reduce the consequent number of tokens (keys) needed to be updated each time a user's key is invalidated in a hierarchical structure (see columns 5 and 10, lines 55 – 60 and 48 – 56 of the Aiello reference), thus assuring low-overhead billing and the convenience of access, despite some unauthorized copying (see column 15, lines 15 – 25 of the Stefik reference). With respect to claim 13, the limitations shown there map directly onto the ones shown in claim 8 and are rejected under the same premise.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US PGPub 2002/0031230 A1) in view of Stefik et al. (US Patent # 6,236,971) as applied to claims 1 and 10 - 12 above, and further in view of Aiello et al. (US Patent # 6,397,329 B1). The Sweet and Stefik references has already been discussed above. However, neither one of these two teaches the use of a binary tree as the hierarchy.

On the other hand, Aiello does teach the use of of a binary tree as the hierarchy (see column 8, lines 34 - 36).

Hence, it would have been obvious to one of ordinary skill in the art to have included the methods shown by Aiello into the combination taught by prior two references above, in order to reduce the consequent number of tokens (keys) needed to be updated each time a user's key is invalidated in a hierarchical structure (see columns 5 and 10, lines 55 – 60 and 48 – 56 of the Aiello reference), thus assuring low-overhead billing and the convenience of access, despite some unauthorized copying (see column 15, lines 15 – 25 of the Stefik reference).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corbann A. Banks whose telephone number is (571) 270-1021. The examiner can normally be reached on Monday - Thursday from 8:30 am to 4:30pm. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron, can be reached on Monday – Friday from 8:00 am to 4:30pm. His telephone number is (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.B.
Corbann Banks

October 04, 2006

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